

**Abstract**

Defect analysis of a flip chip die having a back side opposite circuitry at a circuit side and a liquid crystal layer is enhanced using a method and system that makes possible the detection of the defect from the back side of the flip chip. According to an example embodiment of the present invention, a flip chip die having a liquid crystal layer is analyzed by detecting a liquid crystal phase change caused by heat generation at a defect in the die. By detecting the phase change associated with a defect, the defect can be located. The defect detection can be used through the back side of the die, and can be used to detect defects located near intrinsic heat sources that make conventional liquid crystal analysis difficult or even impossible.